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| 10/519,754 | 06/20/2005 | Yasutomo Okajima | YAMAP0962US | 3153 |

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| EXAMINER |
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LEE, LAURA MICHELLE

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| ART UNIT | PAPER NUMBER |
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3724

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| MAIL DATE | DELIVERY MODE |
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08/20/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/519,754

Applicant(s)

OKAJIMA ET AL.

Examiner

Laura M. Lee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 5/17/2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-18 and 20-29 is/are pending in the application.
- 4a) Of the above claim(s) 3,8-18,20-29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 4-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 6/20/2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/30/2004; 6/13/2006</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Group I in the reply filed on 5/17/2007 is acknowledged. The traversal is on the ground(s) that that "claims 20-29, belonging to Group II, each depend from claim 18 either directly or indirectly. Consequently, claims 20-29 inherently include all of the features and limitations of claim 18. Under PCT Rule 13.2, if claims 20-29 share the same or corresponding features as claim 18 (as they undoubtedly do as a result of depending from claim 18), then the claims all relate to a single general inventive concept under PCT Rule 13.1". This is not found persuasive because the restriction was between the claimed method and apparatus, in which Group I was drawn to a substrate cutting system and Group II was drawn to a method of cutting a substrate. The indication that independent method claim 18 was part of the apparatus grouping was an unintentional typographical error. The examiner was not presenting a restriction between independent claim 18 and dependent claims 20-29, but rather between apparatus claims 1-17 and method claims 18, 20-29. Any miscommunication concerning the breakdown between the method and apparatus groupings is regrettable.

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 3,8-18, 20-29 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention/ species there being no

allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 5/17/2007.

Oath/Declaration

3. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:
It does not state that the person making the oath or declaration acknowledges the duty to disclose to the Office all information known to the person to be material to patentability as defined in 37 CFR 1.56.

4. The oath incorrectly recites material to patentability as defined in 37 CFR 1.56(a).

Specification

5. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Drawings

6. Figures 35-36 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid

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abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1,4-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Benuzzi (U.S. Patent 6,178,864). Benuzzi discloses a substrate cutting system (device for sawing stacks of panels) capable of cutting a bonded substrate formed by bonding a first substrate and a second substrate into a plurality of cut substrates, the system for cutting a substrate of the bonded substrate comprising:

a cutting apparatus (9/10; 12/13) comprising:

a first cutting device (12/13) located so as to face the first substrate, and a second cutting device (9/10) located so as to face the second substrate;

wherein the first cutting device comprises a scribing portion (scoring saw, 13) in which first scribing means for forming a scribing line of the first substrate is provided,

the second cutting device (9/10) comprises a scribing portion (scoring saw, 10) in which the second scribing means for forming a scribing line of the second substrate is provided,

the first cutting device (12/13) further comprises a back up portion (pressing means, 5p, 5p') for supporting a surface of the first substrate when the second scribing means (10) of the scribing portion of the second cutting device (9/10) scribes the second substrate, in correspondence with the portion to be scribed, and a breaking portion (circular saw blade, 12) for cutting the first substrate along the scribing line formed on the first substrate, and

the second cutting device (9/10) further comprises a back up portion (table, 3) for supporting a surface of the second substrate when the first scribing means (13) of the scribing portion of the first cutting device (12/13) scribes the first substrate, in correspondence with the portion to be scribed, and a breaking portion (circular saw blade, 9) for cutting the second substrate along the scribing line formed on the second substrate.

In regards to claim 4, Benuzzi discloses a substrate carrying apparatus (gripper, 4), which sequentially positions lines to be cut of the bonded substrate with respect to the cutting apparatus (9/10; 12/13).

In regards to claim 5, Benuzzi discloses wherein the substrate carrying apparatus (4) comprises a plurality of tables (4p,4p).

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Masakazu (JP 10338534) in view of Masayuki (JP 10209086).

Masakazu discloses a substrate cutting system (device for sawing stacks of panels) capable of cutting a bonded substrate formed by bonding a first substrate and a second substrate into a plurality of cut substrates, the system for cutting a substrate of the bonded substrate comprising a cutting apparatus (Figure 2). Although Masakazu discloses a glasscutter with a scribing portion, 43, a backup portion, 42, and a breaking device, 48, Masakazu only discloses one such scribing and breaking system.

However, attention is directed to the Masayuki device that discloses a method of breaking a workpiece wherein to shorten the work time and improve the yield of material, scribing lines are provided on the same portions of the surface and the back surface of the plate to break the plate along the lines. It would have been obvious to one having ordinary skill in the art at the time of the invention to have similarly provided the Masakazu system on both sides of the substrate as disclosed by Masayuki to shorten the operating time and improve the yield of the material. Additionally it is noted that has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

Therefore, the modified device of Masakazu discloses

a first cutting device (Figure 2) located so as to face the first substrate, and a second cutting device (Figure 2') located so as to face the second substrate;

wherein the first cutting device comprises a scribing portion (43) in which first scribing means for forming a scribing line of the first substrate is provided,

the second cutting device (Figure 2') comprises a scribing portion (43') in which the second scribing means for forming a scribing line of the second substrate is provided,

the first cutting device further comprises a back up portion (42) for supporting a surface of the first substrate when the second scribing means (43) of the scribing portion of the second cutting device scribes the second substrate, in correspondence with the portion to be scribed, and a breaking portion (48) for cutting the first substrate along the scribing line formed on the first substrate, and

the second cutting device further comprises a back up portion (42') for supporting a surface of the second substrate when the first scribing means (43') of the scribing portion of the first cutting device scribes the first substrate, in correspondence with the portion to be scribed, and a breaking portion (48') for cutting the second substrate along the scribing line formed on the second substrate.

11. Claim 4-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Masakazu in view of Masayuki and in further view of Shigeyuki et al. (JP 2001-261357), herein referred to as Shigeyuki. The modified device of Masakazu does not disclose a substrate carrying apparatus, which sequentially positions lines to be cut of the bonded

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substrate with respect to the cutting apparatus. However, attention is directed to the Shigeyuki device that discloses sheet glass apparatus with a glass-cutting and breaking machine, 14, with an absorption transfer device, 12. Shigeyuki discloses that the transfer device aids in the movement of the workpiece from workstation to workstation without needing to manually manipulate the workpiece and to improve the efficiency of working with the workpiece. It similarly would have been obvious to utilize a conveyance system as taught by Shigeyuki with the apparatus of Masakazu to aid the user in transporting the workpiece to and from the cutting apparatus.

In regards to claim 5, the modified device of Masakazu discloses wherein the substrate carrying apparatus (12) comprises a plurality of tables (pads, 28; see Figures 1 and 3).

In regards to claim 6, the modified device of Masakazu discloses wherein the tables (28) are independently movable (removable).

In regards to claim 7, the modified device of Masakazu discloses wherein the tables comprise adsorption holes for adsorbing the bonded substrate (connected to suction pump; not illustrated; paragraph [0013]).

Conclusion


12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent 6,460,258 to Shimotoyodome, U.S. Patent 6,408,527 to Chubb, U.S. Publication 2003/0155391 to Chae et al., U.S. Patent 5,475,196 to

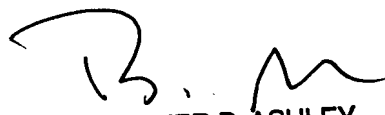
Lisec, U.S. Patent 4,213,550 to Bonaddio, U.S. Patent 6,774,978 to Shin, U.S. Patent 3,424,357 to Curtze et al., U.S. Patent 3,742,793 to Gray et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura M. Lee whose telephone number is (571) 272-8339. The examiner can normally be reached on Monday through Friday, 8:00am to 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Boyer Ashley can be reached on (571) 272-4502. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LML 
08/03/2007


BOYER D. ASHLEY
SUPERVISORY PATENT EXAMINER